ELSEVIER

Volume 449, Numbers 1–2, 1 June 1998

JOURNAL OF ELECTROANALYTICAL CHEMISTRY

Contents

Preliminary notes

Electron transfer and electrochemical catalysis using cobalt-reconstituted myoglobin in a surfactant film
J. Gao and J.F. Rusling 1

Voltammetry of hydroxide ion in aqueous solutions on gold microelectrodes
M.E. Abdelsalam, G. Denuault, M.A. Baldo and S. Daniele 5

Regular papers

Electrochemical impedance of multistep mechanisms: a general theory
D.A. Harrington 9

Electrochemical impedance of multistep mechanisms: mechanisms with static species
D.A. Harrington 29

Electrochemical reduction of acids in dimethyl sulfoxide. CE mechanisms and beyond
S.E. Treimer and D.H. Evans 39

Facilitated ion transfer reactions across oil|water interfaces. Part I. Algebraic development and calculation of cyclic voltammetry experiments for successive complex formation
F. Reymond, P.-A. Carrupt and H.H. Girault 49

A chemical and electrochemical study of titanium ions in the molten equimolar $CaCl_2 + NaCl$ mixture at 550°C.
A.M. Martínez, Y. Castrillejo, E. Barrado, G.M. Haarberg and G. Picard 67

Multistep one-electron photoelectrocatalytic reduction of oxygen at tris(2,2′-bipyridine)ruthenium(II)-incorporated Nafion®- and clay-coated electrodes in the presence of macrocyclic cobalt(III) complexes
K.V. Gobi and R. Ramaraj 81

XPS and voltammetric studies on $Ni_{1-x}Cu_xCo_2O_4$ spinel oxide electrodes
A.C. Tavares, M.I. da Silva Pereira, M.H. Mendonça, M.R. Nunes, F.M. Costa and C.M. Sá 91

Electrochemical and in situ FTIR studies on the adsorption and oxidation of glycine and lysine in alkaline medium
K. Ogura, M. Kobayashi, M. Nakayama and Y. Miho 101

An electrochemical impedance and spectroelectrochemical study of the polypyrrole–flavin composite electrode
C. Bonazzola and E.J. Calvo 111

Rationalisation of time-dependent and voltage-dependent electroactivity in Nafion®/$Os(bpy)_3^{3+/2+}$ films in terms of a model that assumes restricted counterion access to non-equivalent redox sites
S. Åberg and M. Sharp 121

A comparative study of the impedance properties of glassy-carbon electrodes covered with poly(styrenesulphonate) and Nafion® films containing $Os(bpy)_3^{3+/2+}$ redox sites
M. Sharp and S. Åberg 137

Adsorption of adenosine on (111) and (001) bismuth single crystal planes
E. Lust, A. Jänes and K. Lust 153

Enhancement of biosensor sensitivity in aqueous and organic solvents using a combination of poly(pyrrole-ammonium) and poly(pyrrole-lactobionamide) films as host matrices.
S. Cosnier, A. Lepellec, B. Guidetti and Isabelle Rico-Lattes 165

Modification of electrodes with porphyrin-functionalised conductive polymers
B. Ballarin, S. Masiero, R. Seeber and D. Tonelli 173

The impinging jet flow method in interfacial electrochemistry: an application to bead-type electrodes
M. Bergelin and M. Wasberg 181

Surface cleavage of oxocarbons to CO adspecies on Pt(111) electrodes induced by metal adatoms
R. Carbó, R. Albalat and J. Claret 193

Short communications

Studies on ion-exchange membranes. II. Measurement of the anisotropic conductance of Nafion®
C.L. Gardner and A.V. Anantaraman 209

Contents

In-situ synchrotron far infrared spectroscopy of surface films on a copper electrode in aqueous solutions
C.A. Melendres, G.A. Bowmaker, J.M. Leger and B. Beden 215

Electrochemical monitoring of in vivo reconstitution of glucose dehydrogenase in *Escherichia coli* cells with externally added pyrroloquinoline quinone
T. Ikeda, H. Matsubara, K. Kato, D. Iswantini, K. Kano and M. Yamada 219

Electrochemical characteristics of the microhole ITIES
L. Murtomäki and K. Kontturi 225

Meeting Report

GEI 97: Presentation of the 'Galvani Medal' to Jean Michel Savéant 231

Announcement

Electrocatalysis: Advances and Industrial Applications (ECS '99) 233

Author index 235
Subject index 237

The table of contents of the Journal of Electroanalytical Chemistry is included in ESTOC – Elsevier Science Tables of Contents services – which can be accessed on the World Wide Web at the following URLs:
http://www.elsevier.nl/locate/estoc or http://www.elsevier.com/locate/estoc

US mailing notice—*The journal of Electroanalytical Chemistry* (ISSN 0022-0728) is published three weekly by Elsevier Science S.A. (P.O. Box 564, CH-1001 Lausanne). Annual subscription price in the USA is US$ 5069.00 (valid in North, Central and South America), including air speed delivery. Application to mail at second class postage rate is pending at Jamaica, NY 11431.
USA POSTMASTERS: Send address changes to the *Journal of Electroanalytical Chemistry*. Publications Expediting, Inc., 200 Meacham Avenue, Elmont, NY 11003.
AIRFREIGHT AND MAILING in the USA by Publication Expediting, Inc., 200 Meacham Avenue, Elmont, NY 11003.
Advertising information: Advertising orders and enquiries may be sent to: **International:** Elsevier Science, Advertising Department, The Boulevard Langford Lane, Kidlington, Oxford OX5 1GB, UK, Tel: +44 1865 843565; fax: +44 1865 843976. **USA and Canada:** Weston Media Associates, Danie Lipner, P.O. Box 1110, Greens Farms, CT 06436-1110, USA, Tel: +1 203 261 2500; fax: +1 203 261 0101. **Japan:** Elsevier Science Japan, Marketing Services, 1-9-15 Higashi-Azabu, Minato-ku, Tokyo 106, Japan, Tel: +81 3 5561 5033, fax: +81 3 5561 5047.